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UTILITY PATENT APPLICATION TRANSMITTAL (Small Entity) <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>		Docket No. 20903.002US
TO THE ASSISTANT COMMISSIONER FOR PATENTS Box Patent Application Washington, D.C. 20231		Total Pages in this Submission
<p>Enclosed herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:</p> <p>ANALYSIS SYSTEM</p> <p>and invented by:</p> <p>CLONINGER, JR., Charles R. PANDYA, Rajiv D.</p>		
<p>If a CONTINUATION APPLICATION, check appropriate box and supply the requisite information:</p> <p><input type="checkbox"/> Continuation <input type="checkbox"/> Divisional <input type="checkbox"/> Continuation-in-part (CIP) of prior application No.: _____</p> <p>Which is a:</p> <p><input type="checkbox"/> Continuation <input type="checkbox"/> Divisional <input type="checkbox"/> Continuation-in-part (CIP) of prior application No.: _____</p> <p>Which is a:</p> <p><input type="checkbox"/> Continuation <input type="checkbox"/> Divisional <input type="checkbox"/> Continuation-in-part (CIP) of prior application No.: _____</p> <p>Enclosed are:</p> <p style="text-align: center;">Application Elements</p> <p class="list-item-l1">1. <input checked="" type="checkbox"/> Filing fee as calculated and transmitted as described below</p> <p class="list-item-l1">2. <input checked="" type="checkbox"/> Specification having <u>thirty-four (34)</u> pages and including the following:</p> <ul style="list-style-type: none"> a. <input checked="" type="checkbox"/> Descriptive Title of the Invention b. <input checked="" type="checkbox"/> Cross References to Related Applications (<i>if applicable</i>) c. <input type="checkbox"/> Statement Regarding Federally-sponsored Research/Development (<i>if applicable</i>) d. <input type="checkbox"/> Reference to Microfiche Appendix (<i>if applicable</i>) e. <input checked="" type="checkbox"/> Background of the Invention f. <input checked="" type="checkbox"/> Brief Summary of the Invention g. <input type="checkbox"/> Brief Description of the Drawings (<i>if drawings filed</i>) h. <input checked="" type="checkbox"/> Detailed Description i. <input checked="" type="checkbox"/> Claim(s) as Classified Below j. <input checked="" type="checkbox"/> Abstract of the Disclosure 		

UTILITY PATENT APPLICATION TRANSMITTAL (Small Entity)

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.
20903.002US

Total Pages in this Submission

Application Elements (Continued)

3. Drawing(s) (*when necessary as prescribed by 35 USC 113*)
a. Formal b. Informal Number of Sheets _____

4. Oath or Declaration
a. Newly executed (*original or copy*) Unexecuted
b. Copy from a prior application (37 CFR 1.63(d)) (*for continuation/divisional application only*)
c. With Power of Attorney Without Power of Attorney
d. DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s) named in the prior application,
see 37 C.F.R. 1.63(d)(2) and 1.33(b).

5. Incorporation By Reference (*usable if Box 4b is checked*)
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under
Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby
incorporated by reference therein.

6. Computer Program in Microfiche

7. Genetic Sequence Submission (*if applicable, all must be included*)
a. Paper Copy
b. Computer Readable Copy
c. Statement Verifying Identical Paper and Computer Readable Copy

Accompanying Application Parts

8. Assignment Papers (*cover sheet & documents*)

9. 37 CFR 3.73(b) Statement (*when there is an assignee*)

10. English Translation Document (*if applicable*)

11. Information Disclosure Statement/PTO-1449 Copies of IDS Citations

12. Preliminary Amendment

13. Acknowledgment postcard

14. Certificate of Mailing
 First Class Express Mail (*Specify Label No.*): EL497934993US

**UTILITY PATENT APPLICATION TRANSMITTAL
(Small Entity)**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

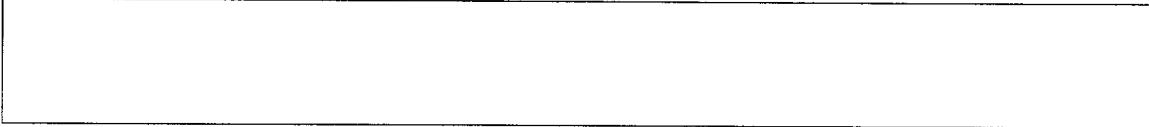
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Accompanying Application Parts (Continued)

Certified Copy of Priority Document(s) (*if foreign priority is claimed*)

16. Small Entity Statement(s) - Specify Number of Statements Submitted: _____

17. Additional Enclosures (*please identify below*):


Fee Calculation and Transmittal

CLAIMS AS FILED

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	20	- 20 =	0	x \$9.00	\$0.00
Indep. Claims	3	- 3 =	0	x \$39.00	\$0.00
Multiple Dependent Claims (check if applicable)	<input type="checkbox"/>				\$0.00
				BASIC FEE	\$345.00
OTHER FEE (specify purpose)			Assignment Recordal		\$40.00
				TOTAL FILING FEE	\$385.00

A check in the amount of \$385.00 to cover the filing fee is enclosed.

The Commissioner is hereby authorized to charge and credit Deposit Account No. as described below. A duplicate copy of this sheet is enclosed.

Charge the amount of _____ as filing fee.

Credit any overpayment.

Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.

Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

Dated: 02 June 2000


Signature

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CC:

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) & 1.27(c))--SMALL BUSINESS CONCERN**
Docket Number (Optional)
20903.003US

Applicant, Patentee, or Identifier: CLONINGER, JR., Charles R.

Application or Patent No.:

Filed or Issued:

Title: JOB ANALYSIS SYSTEM

I hereby state that I am

the owner of the small business concern identified below:
 an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF SMALL BUSINESS CONCERN iComp Health Management System, Inc.

ADDRESS OF SMALL BUSINESS CONCERN PO Drawer 724207, Atlanta, Georgia 31139

I hereby state that the above identified small business concern qualifies as a small business concern as defined in 13 CFR Part 121 for purposes of paying reduced fees to the United States Patent and Trademark Office. Questions related to size standards for a small business concern may be directed to: Small Business Administration, Size Standards Staff, 409 Third Street, SW, Washington, DC 20416.

I hereby state that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention described in:

the specification filed herewith with title as listed above.
 the application identified above.
 the patent identified above.

If the rights held by the above identified small business concern are not exclusive, each individual, concern, or organization having rights in the invention must file separate statements as to their status as small entities, and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern, or organization having any rights in the invention is listed below:
 no such person, concern, or organization exists.
 each such person, concern, or organization is listed below.

Separate statements are required from each named person, concern or organization having rights to the invention stating their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance

NAME OF PERSON SIGNING Charles R. Cloninger, Jr.

TITLE OF PERSON IF OTHER THAN OWNER CHIEF OPERATING OFFICER

ADDRESS OF PERSON SIGNING PO Drawer 724207, Atlanta, Georgia 31139

SIGNATURE Charles R. Cloninger, Jr. DATE 04 May 2000

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Patent
Express Mail No.: EL497934993US
Express Mail Date: 02 June 2000
Customer No.: 022870
Docket No.: 20903.002US

**APPLICATION FOR LETTERS PATENT
UNITED STATES OF AMERICA**

We, Charles R. **CLONINGER, JR.**, a citizen of the United States of America, residing at 1070 Parkland Run, Smyrna, Georgia 30082 US, and Rajiv D. **PANDYA**, M.D., a citizen of the United States of America, residing at 5720 Riley Terrace Road, Atlanta, Georgia 30327 US, have invented certain new and useful improvements in a

JOB ANALYSIS SYSTEM

Of which the following is a specification.

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JOB ANALYSIS SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

This patent application claims priority under 37 CFR 1.78 of Provisional

5 Patent Application No. (Not yet assigned) filed on 27 January 2000.

BACKGROUND OF THE INVENTION

1. Technical Field

This invention relates generally to the field of analyzing physical activities of a
10 job function for medical purposes and more particularly to a system and method for providing detailed job analyses to health care professionals, human resource professionals, and potential employees, to allow for a clinically oriented real time approach for a return to work determination in a current or alternative job.

2. Prior Art

The medical and physical therapy industry has been providing and performing
15 job analyses for over thirty years. A job analysis is a depiction or description of a person's physical requirements to do a specific job. Usually, a job analysis consists of visiting the site where the specific job is to be performed, observing an employee performing the job, and then filling out a written form that includes categories to
20 describe the lifting, standing, sitting, walking, bending, stooping, and other physical requirements of the job. The completed form usually is what a physician or other medical professional or practitioner will require when a patient or company inquires about a person's capability in performing a specific job. The completed form is referred to as a job analysis summary.

25 A significant amount of time and money is spent on preparing job analyses when an employee files a complaint regarding an alleged workplace related injury. Additionally, currently job analyses are generated each and every time a complaint is filed, regardless of whether an identical or similar job analysis had been prepared in the past on the same job. Further, if it is determined that an employee cannot
30 perform the essential functions of his or her job, that employee often remains out of

work even though that employee could have been reassigned to a job within the company with different essential functions during the rehabilitation time. Such lost time is an often unseen cost of doing business, sometimes leading to lost time claims and lawsuits for unlawful termination. These costs come in the form of
5 increased insurance rates, excessive and/or unnecessary medical costs, case management expenses, and legal fees.

Thus, it can be seen that a more efficient method and system for creating and providing job analyses is desirable, including a method and system that systematizes and objectizes the job analyses system so as to reduce duplicative
10 work, lost time, medical expenses, administrative expenses, and legal expenses, to name a few. It is to this end that the present invention is directed.

BRIEF SUMMARY OF THE INVENTION

The present invention is a significantly enhanced job analysis system,
15 comprising novel features to increase its functionality while at the same time decreasing the overall cost in time, money and personnel. A primary feature of the invention is the creation of a standard, objective database of the physical requirements for specific jobs within a specific company, and allowing access to the database, irrespective of location, to those persons with a need to know the
20 information in the database. This database further comprises a useful pictorial step-by-step analysis of each specific job within a company.

In its simplest form, by objectizing the functions of a job, rather than subjectizing each job to each worker, the present invention provides physicians, other health practitioners, human resource persons, and risk management persons,
25 as well as other selected persons, the knowledge of the physical tasks required of specific jobs within a company, thus allowing a more objective determination of whether a person can perform a job, such as whether a potential employee is capable of performing a specific job, whether a job can be modified to suit a potential or existing employee, and/or whether an employee can return to work, either in the
30 original job or in another job within the company during the rehabilitation period.

Further, once an objective job analysis is created for a specific job, the job analysis can be customized to the actual person performing the job, if desired.

Once the job analysis database is created, the present invention provides a multi-tiered approach to providing information regarding the physical demands of job tasks and functions. A primary novel feature of the invention is to allow a clinically oriented real time approach to determine whether an employee can return to work in their original job or, if not, to determine a specific job within the company to which the employee can return to work. To carry out the invention, first, a task-specific job analysis is conducted of the physical requirements for each job. Second, a physical demands analysis is completed giving both a written and a pictorial description of the various functions involved in carrying out the job. Third, the job analysis and the physical demands analysis are combined into a viewable database. Fourth, the viewable database is made available to the employer and others determined by the employer that have a need to view the database.

The present invention can be used in many ways. A first use is to allow the treating physician to more completely understand the physical job requirements of the employee and make a better determination of whether and for how long the employee should not perform his or her job. A second use is to allow the treating physician to more completely understand the physical job requirements of the employee and make a better determination of whether the employee's condition is job related. A third use is to determine whether and how a job may be modified to allow the employee to come back to work sooner, or to prevent future similar conditions or injuries from occurring. A fourth use is to find alternate jobs that the employee can perform during rehabilitation. A fifth use is to allow a pre-employment viewing of the requirements of various jobs, thus allowing a better match between an employee and a job. A sixth use is to allow health care professionals to demonstrate proper body mechanics for specific job activities so as to help prevent injuries from occurring in the first place.

To these ends, a written and pictorial step-by-step analysis of each job within a company is created describing the physical requirements of each job within the

company with measurable physical data. This is a key distinction between the present invention and the prior art. While the prior art provides job analyses for a specific person performing a specific job, the present invention provides job analyses for the specific job itself, which can be used throughout the company

5 regardless of the person performing the job. The job analysis further comprises the essential functions of each job and the specific requirements for each job of what the specific worker must do to perform the job and the functions of each job that can be modified without affecting the performance of the job.

Another key distinction between the present invention and the prior art is that,

10 if necessary, a specific job analysis can be customized to a specific person performing the job, if there are specific needs or requirements due to the specific person's abilities or limitations. This allows the present invention to be truly functional and to provide the company with the ability to make quicker decisions about whether an employee is appropriate for a particular job, whether an employee (such as an injured employee) can return to work in a particular job, and/or whether a current employee who cannot perform their current job is capable of performing other jobs within the company.

15 A further key distinction between the present invention and the prior art is that, if necessary, a specific job description can be modified to allow a specific employee to perform the job, or if it is determined that certain essential functions of the job are no longer necessary for any employee to adequately perform the job. This allows the present invention to be dynamic and to allow the company to keep up both with the changing needs of the company's jobs and the changing needs of the company's employees.

20 The present invention is configured to be functional over a global computer network such as the Internet, providing real time access and greatly decreasing the amount of time necessary to perform a job analysis and to review an employee's fit with a job or claim based on a job. The use of such a novel method allows the database to be used in performing a transferable skills analysis, and in the event

litigation occurs as a result of an injury to a worker or as a result of a worker claiming a job was not adequately described prior to employment.

Thus, it is an object of the present invention to provide an enhanced job analysis system that comprises a standard, objective database of the physical requirements for jobs.

It is another object of the present invention to provide an enhanced job analysis system that allows access to the database, irrespective of location and preferably over a global computer network such as the Internet, to those persons with a need to know the information in the database.

It is another object of the present invention to provide an enhanced job analysis system that has increased functionality and decreased overall cost in time, money and personnel.

It is another object of the present invention to provide an enhanced job analysis system that allows each party to know exactly what the physical demands of a job are by, in part, including a pictorial step-by-step analysis of a job.

It is another object of the present invention to provide an enhanced job analysis system that can give a physician assurance that the job he or she is releasing the patient to do is within the physical capability, or can be modified to be within the physical capability, of the patient.

It is another object of the present invention to provide an enhanced job analysis system that allows one to modify specific tasks within a job's specifications to the satisfaction of all appropriate parties.

It is another object of the present invention to provide an enhanced job analysis system that helps to reduce the amount of time an employee is out of work by reducing return visits to a physician due to complaints that the physician does not understand the job requirements.

It is another object of the present invention to provide an enhanced job analysis system that insures that physical therapists know the physical job requirements so that proper body mechanics can be taught to the employees.

It is another object of the present invention to provide an enhanced job analysis system that insures that work hardening goals are consistent with the physical demands for a successful return to work.

It is another object of the present invention to provide an enhanced job
5 analysis system that reduces confusion at hearings or other legal or professional
proceedings regarding the specific physical actions required for a return to work.

It is another object of the present invention to provide an enhanced job
analysis system that eliminates the need for duplicative job analyses being
performed by different rehabilitation professionals for the same position regardless
10 of location.

It is another object of the present invention to provide an enhanced job
analysis system that complies with the Americans with Disabilities Act requirements.

These objects, and other objects, features and advantages of the invention
will become more apparent to those of ordinary skill in the art when the following
15 detailed description of the preferred embodiments is read in conjunction with the
attached appendices that provide a representation of the process.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is a significantly enhanced job analysis system,
20 comprising novel features to increase its functionality while at the same time
decreasing the overall cost in time, money and personnel. The present invention is
designed for use in the hiring process for potential employees, in the review process
for employees filing an injury complaint, in the legal process in dealing with ADA
complaints or lawsuits, and in other essential physical and health related aspects of
25 employment. A primary feature of the invention is the creation of a standard,
objective pictorial database of the requirements for specific jobs within a specific
company, and allowing access to the database, irrespective of location, to those
persons with a need to know the information in the database. In its simplest form,
the present invention will provide physicians, other health practitioners, human
30 resource persons, and risk management persons, as well as other selected persons,

the knowledge of the physical tasks required of specific jobs within a company, thus allowing a more objective determination of whether a person is suitable for a job, such as whether a potential employee is capable of performing a specific job, whether a job can be modified for a potential or existing employee, and/or whether

5 an employee can return to work, either in the original job or, if not, in another job within the company during the rehabilitation period.

The present invention is a multi-tiered approach to providing accurate, up-to-date and updateable information regarding the physical requirements of job tasks and functions. First, a task-specific job analysis is conducted of the physical

10 requirements for each job. Second, a physical demands analysis is completed giving both a written and a pictorial description of the various functions involved in carrying out the job. The pictorial description can be in the form of pictures, video, graphical representations, or animation. Third, the job analysis and the physical demands analysis are combined into a viewable database. Fourth, the viewable
15 database is made available to the employer and others determined by the employer that have a need to view the database. The viewable database can be made available through many media means, with CD-ROM and Internet based being the media of choice based on current technology.

The present invention can be used in many ways. A first use of the preferred embodiment is for presentation to the treating physician so that the treating physician can more completely understand the physical job requirements of the employee and make a better determination of whether and for how long the employee should not perform his or her job. A second use of the preferred

20 embodiment is so that the treating physician can more completely understand the physical job requirements of the employee and make a better determination of whether the employee's condition is job related. A third use of the preferred embodiment is so that, with a physician's input, as well as the input of other health care and company persons, a job may be modified to allow the employee to come back to work sooner, or to prevent future similar conditions or injuries from occurring.
25
30 A fourth use of the preferred embodiment is to find alternate jobs that the employee

can perform during rehabilitation. A fifth use of the preferred embodiment is to allow company persons and prospective employees view the requirements of various jobs, thus allowing a better match between an employee and a job. A sixth use of the preferred embodiment is to allow health care professionals demonstrate proper body mechanics for specific job activities so as to help prevent injuries from occurring in the first place.

In its preferred general embodiment, the present invention comprises improvements over prior art job analysis techniques, including a new and improved method of performing job analyses and delivering or providing access to the results of the job analyses. A first improvement provided by the present invention, and a key distinction over the prior art, is a searchable job specific database of job analyses and physical demands requirements that allows, among other things, a real time determination of both whether an employee can perform a certain job, and whether there is a specific job that is suitable for a specific employee. This allows both a faster return to work for an injured employee (either in the employee's original job or in an alternative job) and a better match between an employee and a job.

A second improvement provided by the present invention is the inclusion of certain functions required by the Americans with Disabilities Act (ADA) that are not included in job analyses produced by other entities. For example, in part due to the rise in computer usage, which has resulted in an increase in hand and arm injuries, the job analyses of the present invention includes a section dedicated to analyzing arm and head injuries due to computer usage. A third improvement provided by the present invention is the ability to add additional requirements and/or variances for a particular employee performing a particular job. When looking at a particular job on a nationwide basis, slight variations in the job requirements may exist due to regional, gender or age differences. For example, part of one bank teller's written job duties may include carrying bags of coins from the teller stations to the bank vault for the other, less strong, tellers.

Shown at Appendix A are common definitions of terms for physical requirements that are used in the present method. These terms are taken from The

Revised Handbook For Analyzing Job published by the US Department of Labor, Employment and Training Administration in 1991.

Shown at Appendix B is a representative Job Analysis Summary created by the present method.

5 Shown at Appendix C is a representative Physical Demands Analysis created by the present method.

Preferably, the job analysis summary is in written form and includes specific notations of the essential functions of the position that an employee must be able to perform in order to do the job. In general, jobs are analyzed in terms of elements

10 and tasks. An element is the smallest step into which it is practical to subdivide any work activity without analyzing the separate motions, movements and mental processes involved. A task is one or more elements and is one to the distinct activities that constitute the logical and necessary steps in the performance of work by the worker. Further, jobs may be broken down in terms of positions. A position is a collection of tasks constituting the total work assignment of a single worker. A job is a group of positions within an employment setting that are identical with respect to their major or significant tasks and sufficiently alike to justify their being covered by a single analysis.

20 First, the job is given a generic title. Second, a brief description of the job activities is created in terms of what the employee is accomplishing and what the employee physically needs to do. Third, a list is created of the essential functions that the employee must be able to do to perform the job properly. These essential functions then are broken down into the various physical requirements, which preferably comprise one or more of the fourth through ninth steps listed immediately below. Fourth, a list is created of the strength requirements of the job. Fifth, a list is created of the physical requirements of the job. Sixth, a list is created of the frequencies of certain motions and movements necessary to perform the job. Seventh, a list is created of the working conditions under which the job is performed. Eighth, a list is created of certain flexions necessary for the arms and hands to perform the job. Ninth, a list is created detailing some of the types of motions and

the maximum strengths necessary to perform the job. Tenth, a list is created of the specific or additional requirements necessary of a specific employee for the specific job at the specific workstation. The preferred job analysis further comprises a section for a physician to indicate his or her review and approval of the job analysis.

5 Although these are the preferred steps, it will be recognized by those of ordinary skill in the art that all of these steps are not essential, and other steps can be added or substituted, without departing in scope from the invention.

Referring now to Appendix B, a representative job analysis is shown for an A Line Operator at an automobile seat assembly plant. The position title is A Line

10 Operator. The position description describes briefly what the A Line Operator is expected to do to perform the job properly. The essential functions include activities such as lifting a certain amount of weight, the primary position the employee will be in, what parts of the body the employee primarily will use, and any other functions the employee will have to perform to perform the job properly. These first three
15 items preferably are in prose form.

Following the essential functions are charts or other graphical representations

of the next six items of the job analysis summary. The strength requirements of the job are given based on the amount of weight to be lifted or otherwise acted on by the employee and the frequency of lifting or otherwise acting on the amount of weight. It

20 has been found suitable to divide the amount of weight into specific ranges of weights, and to divide the frequency into specific percentage ranges of frequency.

The physical requirements of the job are given based on the specific motion or movement to be made by the employee and the frequency of making the motion or movement. It has been found suitable to divide the frequency into specific

25 percentage ranges of frequency. The frequencies of certain motions and movements necessary to perform the job are given based on the actual arm and leg motions and movements to be made by the employee and which arm or leg (neither, left, right or both) is to be used and how often the motion or movement must be made. It has been found suitable to divide the frequency into specific quantitative
30 amounts.

The general working conditions under which the job is performed are listed. It has been found suitable simply to indicate whether a certain working condition will be encountered using a yes or no chart. The flexions necessary for the arms and hands to perform the job are given and preferably include whether the wrist, elbow

5 and shoulder need to be twisted, flexed and/or extended by the employee to perform the job. It has been found suitable simply to indicate whether a certain flexion is necessary and by which portion of the arm. The types of motions and the maximum strengths necessary to perform the job are given and preferably include the grips, reaches, lifts and forces that are necessary by the employee to perform the job. It
10 has been found suitable simply to indicate whether a specific grip, reach or lift is required, and the maximum distance of the reach, the maximum weight of the lift, and the maximum number of push and pull forces required.

As a further novel and useful feature, a list is created of the specific or additional requirements necessary of a specific employee for the specific job at the specific workstation. This helps tailor the job analysis to the specific position, which in turn helps all persons involved to determine whether a specific employee is capable of performing a specific job and, if not, what job(s) he or she is capable of performing. Likewise, a section is provided for a physician to indicate his or her review and approval of the job analysis for the particular employee or in general, and
15 which aspects of the job analysis were reviewed. This acts as a further check on the physician's determination of whether the employee is capable of performing a specific job.

In a first embodiment of the physical demands analysis, the various action steps of an essential function are broken down and represented by sequential pictures. Using this technique, a physician is able to look at the pictures and rapidly formulate an opinion about whether an employee is suitable for a specific job, and vice versa, rather than having to read the text and attempt to extract the actual risks and strains associated with the essential function. The pictorial physical demands analysis allows the physician to see what the actual worksite looks like in sequential
25 pictures of an actual person performing the job and what movements a person will
30

have to make in performing the job. The text accompanying the picture provides information such as how much force must be exerted by the employee in carrying out the physical aspects of the job, the amount of weight an employee may be expected to lift or otherwise move, the frequency that a certain motion or movement

5 is required, what position(s) the employee must be in, what position an employee must hold his or her back, how high the employee must reach, or the like. Thus, the physician is able to obtain a clear picture of what the person must do to perform the essential functions of the job.

In a second embodiment, the pictorial physical demands analysis can be

10 provided in the form of a video. The physical demands analysis then can be presented to the physician with a full representation of how the job must be performed, and allows the physician to make a more complete determination of whether the employee can perform the job. Although a video is more complete, it also is much more computer memory and telecommunications bandwidth intensive, and not as concise as pictures. Thus, in most situations pictures are preferred, while in other situations video is preferred. In a third embodiment, the pictorial physical demands analysis can be provided in the form of graphical representations, such as stick figures or cartoons. Although this form is less accurate, it also is less resource intensive. In a fourth embodiment, the pictorial physical demands analysis can be 15 provided in the form of animation. Although this form also is less accurate, it is less resource intensive than a real video, while still showing a representation of the employee in motion when performing the job.

The physical demands analysis is in written and pictorial form and includes a first section comprising the specific steps of the job including the essential functions,

25 a second section comprising a pictorial representation of the specific steps, and a third section listing the physical requirements of the steps. In this component, each action step of the job is described, is shown pictorially, and the physical requirements of the action are listed. The physician, or other qualified person, views both the job analysis and the physical demands analysis when making a 30 determination whether the employee can return to work in the same or a different

job. Optionally, there is an attachment form for the potential employee to sign to indicate that he or she has reviewed the requirements for the position as described in the job analysis and the physical demands analysis. Thus, if the potential employee is hired and later indicates medical or other conditions that would preclude

5 him or her from performing the job, the employee and the form can be reviewed by the appropriate persons for an evaluation of the employee's continued employment and/or the employee's capability to perform the job safely.

To create the physical demands analysis, first, the generic job title and the brief description are repeated from the job analysis summary. Second, generic sub-

10 listings of the department of the company in which the job is and the generic task name are given. Third, a three-part screen is created showing the tasks of the job, a pictorial representation of the tasks, and the physical requirements of the tasks.

This screen is repeated sequentially to show each discrete task required to perform the job. Although these are the preferred steps, it will be recognized by those of ordinary skill in the art that all of these steps are not essential, and other steps can be added or substituted, without departing in scope from the invention.

Referring now to Appendix C, a representative physical demands analysis is shown for the A Line Operator at an automobile seat assembly plant used as an example in the prior discussion of the job analysis. The opposition title is A-Line Sub-Assembly Operator. The position description describes briefly what the A Line Sub-Assembly Operator is expected to do to perform the job properly. The department is given as A Line. The specific task that is the subject of the physical demands analysis is Cushion Trim to Foam.

The first section of the three-part screen is a written description of the specific task, along with a listing of the physical functions necessary to carry out the task. The physical functions preferably are divided into non-essential functions and essential functions. For the example task shown (1. Obtain Cushion Foam/Trim), there are physical functions. The first physical function, obtain cushion foam/trim from conveyor, is not designated as an essential function possibly because someone besides the A-Line Sub Assembly Operator could do this function. The

second physical function, inspect for defects, is designated an essential function possibly because the A-Line Sub Assembly Operator must make the determination of whether the cushion foam/trim has defects.

The second section of the three-part screen is a pictorial representation of the

5 specific task. This pictorial representation can be one or more of several different types. The preferred type is a picture of the specific task as a representative employee is performing it. A second preferred type is a video of the specific task as a representative employee is performing it. Alternative types include graphical depictions, such as stick or cartoon people, and animation showing the specific task
10 as it is being performed. The video or animation can be played in this second section while the screen is being viewed. This section of the three-part screen allows the physician or other appropriate person(s) to view an actual person performing the actual job, thus allowing the physician or other appropriate person(s) to make a better determination of whether the employee can perform the job.

15 The third section of the three-part screen is a written listing of the physical requirements of the specific task. This section comprises various charts of the

physical requirements of the task and can be customized for each task or job. As shown in the example of Appendix C, three different physical requirement charts were deemed suitable for the specific tasks to be performed. The first chart shows
20 the motions or movements the shoulder, elbow, wrist and grip of the left and right arms that the employee needs to make to perform the task. The second chart shows the force necessary to perform the task, and the motions of the back and neck that the employee needs to make to perform the task. The third chart shows the hand height and forward reach that the employee needs to make to perform the
25 task. Various other information can be included or substituted in the third section as determined necessary or desirable by the physician or other appropriate person(s).

In conducting an on-site physical demands analysis, each element or task of the job is analyzed in terms of its physical demands. Tasks are photographed and/or videoed. Accompanying the pictorial representation is data regarding the
30 physical demands. The physical demands noted for each task summarize the

maximum physical demands for all of the elements necessary to perform that task.

Strength requirements can be obtained using standard job analysis equipment including a tape measure to measure height and reach, a scale to measure weight, and a push-pull ergometer to measure push-pull forces. Preferably, weights and

5 forces are measured three or more times and averaged.

The pictorial physical demands analysis component of the present invention includes pictorial representations of certain essential functions of a job. In the pictorial demands analysis, the various action steps of an essential function are broken down and represented graphically by, for example, sequential pictures, a

10 video, graphical representations, or animation. Using this pictorial technique, one is able to view the physical aspects and essential functions of a particular job and formulate an opinion as to whether the employee is physically capable of performing the job. The pictorial physical demands analysis allows one to see what the actual worksite looks like and what movements a person will have to make in performing
15 the job, eliminating the possibility that, for example, a physician will have to formulate a medical opinion without knowing what the actual worksite looks like. Thus, one is able to obtain a clear picture of what the person must do to perform the essential functions of the job.

The present invention comprises a novel system and method for providing all
20 of the job analyses if a company quickly and easily and to a widely dispersed audience. In a first embodiment, the invention is available to persons over a global computer network such as the Internet. A specific database of job analyses for a

specific company can be accessed through a single provider's network portal, such as a World Wide Web site. Persons could log on to the site and access the desired
25 job analysis and/or physical demands analysis and, if necessary, print out the desired pages. In this way, a single database for each company could be

maintained and kept up to date for the company. Likewise, the distribution would be simple, and would eliminate the need to constantly send out new CDs or other storage media to the necessary persons. Further, physicians who are members of a
30 particular insurance network, or who are preferred by a specific company, could

easily log on to the company's database through the computer network and access the company's database without having to deal with one or more separate CDs of information.

In a second embodiment, all of the job analyses are included on a CD-ROM

5 or other portable storage media. Everything that would normally be provided in a hard copy of the job analysis is on the CD-ROM. Thus, in a representative example, a company may have locations in different states, with a centralized risk management department. If an employee lodges a complaint in one location, the human resources person at that location can send the complaint to the risk
10 management department at the headquarters in another state, and request that the employee be sent to the physician the very next day. To facilitate the physician's examination and determination of whether the employee can continue to perform his or her employment, the human resources person would send a job analysis for the specific job to the physician. This would allow the physician to determine whether
15 the employee's symptoms are a result of the employee's job and to make recommendations on how to alleviate the symptoms.

Under the current art, a company would hire a job analysis firm to visit the employee's place of work, to observe the employee at work, and to prepare a job analysis. This process could take on the order of one to several weeks to complete.

20 The present invention greatly decreases the time for reviewing an employee's claim, or for matching an employee to a job, by allowing the human resources person to generate a job analysis and send the job analysis to the physician, if necessary, simply by reviewing and selecting the appropriate job analysis from the present system. Upon completion, the human resources person can send the job analysis to
25 the physician via e-mail or the like. Alternatively, the physician, if authorized, could access the job analysis database for the company, and look up the employee's job analysis when the employee visits the physician. Alternatively, the CD-ROM could be sent to the physician, or could be maintained at the remote location where it could be transported to the treating physician's office.

There are many ways that the invention can be used. A first preferred use is for presentation to a treating physician so that he or she can more completely understand the physical job requirements that a specific employee must undertake.

This will help the physician determine whether the employee is physically capable of 5 performing the job functions. This also will help the physician determine if the employee's injury is job-related, and whether the employee can perform other jobs at the company during rehabilitation.

A second preferred use is to determine how a job can be modified so that the employee can return to work safely while still undergoing medical care or

10 rehabilitation. The job analysis and the physical demands analysis can be reviewed with physicians, physician's assistants, occupational therapy professionals, risk management professionals and the like for a more complete review. The ability to more easily modify a job's requirements will, among other things, allow an employee to return to work sooner and lessen lost time and money for both the employee and 15 the company.

The showing of the required job duties to the physical therapist or work hardening specialist encourages modalities that will return the employee to a similar level of work. Further, a therapy program can be designed that will restore an employee's functions to pre-injury levels by providing the therapist knowledge of the 20 physical activities that will be required of the employee for a safe return to work.

Additionally, one can determine what job tasks will need to be modified permanently so that the employee can return to work in a meaningful manner. Even further, one can determine whether an employee will not be able to return to work in the same job, even with modifications, and can help the employee search for another job

25 within the same company. All of this can be done at an early stage, or as a preventative measure, rather than maintaining an unrealistic hope of returning an employee to work in a previous job.

A third preferred embodiment is to allow the physical therapist a review of the requirements of a specific job such that the therapist can help an employee with the 30 proper body mechanics for performing a specific job. Often, improper body

mechanics are the cause for injury in the first place. A preview of the proper body mechanics, and sessions with the employees regarding body mechanics, will result in fewer injuries.

To carry out the preferred method of the present invention, first, a job analysis

- 5 is created by listing all of the job requirements and working conditions. Second, a physical demands analysis is created by coordinating the essential functions of each of the job's tasks and the physical requirements of each of the job's tasks with a pictorial representation of each of the job's tasks. Third, the job analysis and the physical requirements analysis are repeated for each discrete job within a company.
- 10 Fourth, the various job analyses and physical demands analyses are combined to create a company specific job analysis system database. Fifth, the job analysis system database is made available to those with a need to know the database, such as physicians and company officials.

The combination of the data shown in Appendices B and C using the present

- 15 invention provides a useful, new and unobvious method and system for providing real time job analysis to physicians, other health care professionals, human resource persons, risk management persons, and employees, saving time, money, and human resources in a manner heretofore not done. The invention is designed for use by a wide variety of persons, including those of local companies, local office
- 20 employees of national companies, national employees (such as those located in the headquarters), and national employees of international companies.

An important component of the present invention, and one that distinguishes the present invention from the prior art, is the novel search engine that allows the job analyses database to be searched for an appropriate job for an employee, or for

- 25 alternative positions that an employee can perform during the injury and/or rehabilitation period. Currently, an injured employee is evaluated relative to his or her current position. If the injured employee is unable to perform his or her current position, he or she is put on medical leave until he or she can return to work in his or her current position. This is an inefficient use of an employee who otherwise is

capable of performing other jobs. Being out of work can effect an employee psychologically and can have a negative effect on a company.

The present invention helps companies and employees avoid out of work situations and hasten a return to work, either in the same position or in an alternative position. Use of the search engine can find alternative jobs that the injured employee can do, and the injured employee can return to work in such an alternative position. This reduces the negative psychological effect being out of work can have on an employee, and the negative economic effect having an employee out of work can have on a company. The company can fill a position with a valued employee, saving the payment of a salary for an unnecessary additional employee, whole not paying an employee for taking unnecessary medical leave.

For example, in use, the search engine can allow searching by maximum weight the employee is able to lift, maximum frequencies of motion or movement an employee is able to do, and/or the physical activities the employee is able to do.

Typical click-down boxes and screens are suitable for this type of search engine. Similarly, this type of search engine can be used in the employment process by allowing the employee to input his or her physical limitations into the search engine screen. Jobs that the company has available then will be returned, and the employee and the human resources person can decide if the employee is right for the job.

Thus, it can be seen that the present invention provides a useful, novel and non-obvious method for determining whether an employee can return to work after an injury in the employee's original position or in an alternative position, for determining whether there is an alternative position within an organization for an

employee who is no longer able temporarily or permanently to perform the employee's original job, and for matching an employee to a specific position within an organization. As disclosed above, the method creates reusable job analyses for a specific job within an organization, which can be customized to a specific employee if necessary, rather than non-reusable individualized job analyses for a specific person performing a specific job. This functional job analysis system allows

the user to make clinical decisions with specific injuries in mind, so that a specific job can be changed to accommodate an injured employee and/or a specific employee can be matched to an alternative job. Unlike any of the prior art systems, the search functionality and the job modification functionality of the present invention allow an

5 employee to return to work sooner either in a modified version of the employee's original job or in an alternative job. Finally, because the job analysis database is available real time, it can be modified and accessed real time, thus significantly reducing the time it takes to make a determination of whether an employee can return to work in the employee's original position, in a modified position or in an

10 alternative position.

The above description of preferred embodiments and attached appendices are for illustrative purposes only and are not intended to limit the spirit and scope of the invention, and its equivalents, as defined by the appended claims.

DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT

APPENDIX A

DEFINITIONS OF TERMS

Definitions for physical requirements are taken from The Revised Handbook for Analyzing Jobs published by the United States Department of Labor, Employment and Training Administration in 1991.

Sedentary Work:

Exerting up to 10 pounds of force occasionally or a negligible amount of force frequently to lift, carry, push, pull, or otherwise move objects, including the human body. Sedentary work involves sitting most of the time, but may involve walking or standing for brief periods of time. Jobs are Sedentary if walking or standing are required only occasionally, and all other Sedentary criteria are met.

Light Work:

Exerting up to 10 pounds of force frequently, or a negligible amount of force constantly to move objects. Physical demand requirements are in excess of Sedentary Work. Even though the weight lifted may be a negligible amount, a job should be rated Light Work; (1) when it requires walking or standing to a significant degree, or (2) when the job requires working at a production rate pace entailing the constant pushing or pulling of materials even though the weight of those materials is negligible.

Medium Work:

Exerting 20 to 50 pounds of force occasionally, or 10 to 25 pounds of force frequently, or greater than negligible up to 10 pounds of force constantly to move objects. Physical Demand requirements are in excess of Light Work.

Heavy Work:

Exerting 50 to 100 pounds of force occasionally, or 25 to 50 pounds of force frequently, or 10 to 20 pounds of force constantly to move objects. Physical Demand requirements are in excess of Medium Work.

Very Heavy Work:

Exerting in excess of 100 pounds of force occasionally, or in excess of 50 pounds of force frequently, or in excess of 20 pounds of force constantly to move objects. Physical Demand requirements are in excess of Heavy Work.

Standing: remaining on one's feet in an upright position at a work station without moving about

Walking: moving about on foot

Sitting: remaining in a seated position

Lifting: raising or lowering an object from one level to another (includes upward pulling)

Carrying: Transporting an object, usually holding it in the hands or arms or on the shoulder

Pushing: Exerting force upon an object so that the object moves away from the force (includes slapping, striking, kicking, and treadle action)

Pulling: Exerting force upon an object so that the object moves towards the force (includes jerking)

Climbing: Ascending or descending ladders, stairs, scaffolding, ramps, poles and the like, using feet and legs or hands and arms

Balancing: Maintaining body equilibrium to prevent falling when walking, standing, crouching or running on narrow, slippery or erratically moving surfaces

Stooping: Bending body downward and forward by bending spine at waist, requiring full use of lower extremities and back muscles

Kneeling: Bending legs at the knees to come to rest on knee or knees

Crouching: Bending body downward and forward by bending legs and spine

Crawling: Moving about on hands and knees or hands and feet

Reaching: Extending hand(s) and arm(s) in any direction

Hand Height: The height at which the worker accomplishes the majority of elements in the task.

Fixture Height: The height at which the worker works when operating a machine or other fixture

Flexion/Extension:

Shoulder: Slight Flex: moving the arm away from the body from 10 to 45 degrees
 Flex: moving the arm away from the body from 46 to 180 degrees
 (includes reaching overhead)

Elbow: Slight Flex: bending the arm at the elbow from 10 to 45 degrees
 Flex: bending the are at the elbow from 46 to 180 degrees

Wrist: Flex: bending the wrist downward
 Extension: bending the wrist upward
 Deviation: bending the wrist from side to side

Essential Function: Any element of the task that must be completed by the worker without assistance and without modification. If a worker is unable to perform an Essential Function he is unable to complete his required job duties.

APPENDIX B

Position Title: A Line Operator

Description: The A-Line Sub Assembly Operator is responsible for assembling the component parts for the front seats of trucks. Operators will work at one of as many as 16 different tasks along the assembly line. Operators will use a variety of hand and power tools including pneumatic wrenches and screwdrivers, and will operate a variety of machines including fixtures and power assist lifts. Operators rotate to a different station along the line each day.

Essential Functions:

- Lifting up to 12 pounds frequently
- Standing constantly
- Use of hands and arms constantly
- Ability to discriminate colors and textures

Strength Requirements

Weight in pounds	Never 1 - 33 %	Occasional 34 - 66 %	Frequent 67 - 100 %	Constant 67 - 100 %
1 - 10			X	
11 - 20			X	
21 - 50	X			
51 - 100	X			
100 +	X			

Physical Requirements

	Never 1 - 33 %	Occasional 34 - 66 %	Frequent 67 - 100 %	Constant 67 - 100 %
Lifting	X			
Standing				X
Walking		X		
Kneeling		X		
Crouching		X		
Squatting		X		
Crawling	X			
Twisting		X		
Climbing	X			
Balancing		X		
Wrist Flexion		X		
Motion				X
Vibration			X	
Stretch		X		

A Line

page 2 of 3

Frequencies

	Light (1-4 times per minute)				Medium (5-9 times per minute)				High (above 10 times per minute)			
	Never	Right	Left	Both	Never	Right	Left	Both	Never	Right	Left	Both
Pushing									X			
Pulling									X			
Pinch Grip												X
Grasp												X
Reach forward									X			
Reach above shoulder					X							
Finger movements												X
Foot Pedal				X								

Working Conditions

	yes	no	Hand Protection	yes	no
Vibration		X			X
Noise		X		X	
Extreme Cold		X	Anti-fatigue Mat	X	
Extreme Heat		X	Works Alone	X	
Dust		X	Works with Others	X	
Odors		X	Always Wear	X	
Foot Protection		X	Operating Machinery	X	

Flexions

	Wrist				Elbow				Shoulder			
	Never	Right	Left	Both	Never	Right	Left	Both	Never	Right	Left	Both
Twist				X								
Flex				X					X			X
Extend				X	X							X

A Line**page 3 of 3****Maximums**

Grips	Required ?	
	yes	no
Pinch	x	
Key	x	
Palm	x	
Object	x	

Reaches	Required ?		Distance
	yes	no	
Forward	x		32 "
Above Shoulder	x		80 "
Extreme Height	x		32 "

Lifts	Required ?		Weight
	yes	no	
Floor-to-Widget	x		12
Widget-to-Shelf	x		12
Above Shelf	x		12
Carry-and-carry	x		13

Forces		
	Push	Pull
Maximum	10	10

Specific or Additional Requirements for this employee at this workstation.

Physician's Approval:

Approved as described _____ (Signature and Date)

Approved with modifications _____ (Signature and Date)

Modifications and Comments: _____

The following have been reviewed:

Job Analysis Summary _____

Videotaped Analysis _____

Photographic Description _____

This Program Developed and Protected by:

Phoenix Rehabilitation Organization, Inc.
 P.O. Box 724496
 Atlanta, Georgia 30039

Toll Free: 1-888-445-9463 Fax: 770-319-6677

APPENDIX C

Automax Seating Corp.
211 Michigan Street
Atlanta, GA 30043
1-800-555-1212

Physical Demands Analysis

Effective: 10/2/99

Job Title:	A-Line Sub Assembly Operator (DOT: 806.684-010)	Page: 1 of 10
Description:	The A-Line Sub Assembly Operator is responsible for assembling the component parts for the front seats of trucks. Operators will work at one of as many as 16 different tasks along the assembly line. Operators will use a variety of hand and power tools, including pneumatic wrenches and screwdrivers, and will operate a variety of machines including fixtures and power assist lifts. Operators rotate to a different station along the line each day.	

Department: A Line**Task:** Cushion Trim to Foam

1. Obtain Cushion Foam/Trim		<table border="1"> <thead> <tr> <th></th><th>Left Arm</th><th>Right Arm</th></tr> </thead> <tbody> <tr> <td>Shoulder</td><td>slight flex</td><td>slight flex</td></tr> <tr> <td>Elbow</td><td>flex</td><td>flex</td></tr> <tr> <td>Wrist</td><td>n/a</td><td>n/a</td></tr> <tr> <td>Grip</td><td>pinch</td><td>pinch</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th></th><th>Back</th><th>Neck</th></tr> </thead> <tbody> <tr> <td>Force</td><td></td><td></td></tr> <tr> <td>3 lbs. lift</td><td>n/a</td><td>slight bend</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Hand Height</th><th>Forward Reach</th></tr> </thead> <tbody> <tr> <td>42"</td><td>18"</td></tr> </tbody> </table>		Left Arm	Right Arm	Shoulder	slight flex	slight flex	Elbow	flex	flex	Wrist	n/a	n/a	Grip	pinch	pinch		Back	Neck	Force			3 lbs. lift	n/a	slight bend	Hand Height	Forward Reach	42"	18"
	Left Arm	Right Arm																												
Shoulder	slight flex	slight flex																												
Elbow	flex	flex																												
Wrist	n/a	n/a																												
Grip	pinch	pinch																												
	Back	Neck																												
Force																														
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2. Set Velcro		<table border="1"> <thead> <tr> <th></th> <th>Left Arm</th> <th>Right Arm</th> </tr> </thead> <tbody> <tr> <td>Shoulder</td> <td>slight flex</td> <td>slight flex</td> </tr> <tr> <td>Elbow</td> <td>slight flex</td> <td>slight flex</td> </tr> <tr> <td>Wrist</td> <td>flex</td> <td>flex</td> </tr> <tr> <td>Grip</td> <td>pinch</td> <td>pinch</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Force</th> <th>Back</th> <th>Neck</th> </tr> </thead> <tbody> <tr> <td>5 lbs. push</td> <td>slight bend</td> <td>slight bend</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Hand Height</th> <th>Forward Reach</th> </tr> </thead> <tbody> <tr> <td>42"</td> <td>18"</td> </tr> </tbody> </table>		Left Arm	Right Arm	Shoulder	slight flex	slight flex	Elbow	slight flex	slight flex	Wrist	flex	flex	Grip	pinch	pinch	Force	Back	Neck	5 lbs. push	slight bend	slight bend	Hand Height	Forward Reach	42"	18"			
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3. Roll Trim		<table border="1"> <thead> <tr> <th></th> <th>Left Arm</th> <th>Right Arm</th> </tr> </thead> <tbody> <tr> <td>Shoulder</td> <td>slight flex</td> <td>slight flex</td> </tr> <tr> <td>Elbow</td> <td>slight flex</td> <td>slight flex</td> </tr> <tr> <td>Wrist</td> <td>flex</td> <td>flex</td> </tr> <tr> <td>Grip</td> <td>pinch</td> <td>pinch</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Force</th> <th>Back</th> <th>Neck</th> </tr> </thead> <tbody> <tr> <td>5 lbs. push</td> <td>slight bend</td> <td>slight bend</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Hand Height</th> <th>Forward Reach</th> </tr> </thead> <tbody> <tr> <td>42"</td> <td>18"</td> </tr> </tbody> </table>		Left Arm	Right Arm	Shoulder	slight flex	slight flex	Elbow	slight flex	slight flex	Wrist	flex	flex	Grip	pinch	pinch	Force	Back	Neck	5 lbs. push	slight bend	slight bend	Hand Height	Forward Reach	42"	18"			
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Job Title:	Dakota A-Line Sub Assembly Operator	Page: 2 of 10
Description:	The A-Line Sub Assembly Operator is responsible for assembling the component parts for the front seats of trucks. Operators will work at one of as many as 16 different tasks along the assembly line. Operators will use a variety of hand and power tools including pneumatic wrenches and screwdrivers, and will operate a variety of machines including fixtures and power assist lifts. Operators rotate to a different station along the line each day.	

Department: A Line.**Task:** Frame Prep / Back Stuff

1. Frame Prep	<ul style="list-style-type: none"> • Obtain back frame • Position in fixture • Obtain lumbar cam • Bolt cam to frame using 2 bolts 		<table border="1"> <thead> <tr> <th></th><th>Left Arm</th><th>Right Arm</th></tr> </thead> <tbody> <tr> <td>Shoulder</td><td>slight flex</td><td>slight flex</td></tr> <tr> <td>Elbow</td><td>flex</td><td>flex</td></tr> <tr> <td>Wrist</td><td>n/a</td><td>n/a</td></tr> <tr> <td>Grip</td><td>pinch</td><td>chuck</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Force</th><th>Back</th><th>Neck</th></tr> </thead> <tbody> <tr> <td>11 lbs. lift</td><td>slight bend</td><td>slight bend</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Hand Height</th><th>Forward Reach</th></tr> </thead> <tbody> <tr> <td>46"</td><td>12"</td></tr> </tbody> </table>		Left Arm	Right Arm	Shoulder	slight flex	slight flex	Elbow	flex	flex	Wrist	n/a	n/a	Grip	pinch	chuck	Force	Back	Neck	11 lbs. lift	slight bend	slight bend	Hand Height	Forward Reach	46"	12"
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46"	12"																											
2. Frame Prep	<ul style="list-style-type: none"> • Obtain lumbar strap ◆ Seat lumbar strap 		<table border="1"> <thead> <tr> <th></th><th>Left Arm</th><th>Right Arm</th></tr> </thead> <tbody> <tr> <td>Shoulder</td><td>n/a</td><td>n/a</td></tr> <tr> <td>Elbow</td><td>flex</td><td>flex</td></tr> <tr> <td>Wrist</td><td>slight flex</td><td>slight flex</td></tr> <tr> <td>Grip</td><td>pinch</td><td>pinch</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Force</th><th>Back</th><th>Neck</th></tr> </thead> <tbody> <tr> <td>1lb. lift</td><td>slight bend</td><td>slight bend</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Hand Height</th><th>Forward Reach</th></tr> </thead> <tbody> <tr> <td>46"</td><td>12"</td></tr> </tbody> </table>		Left Arm	Right Arm	Shoulder	n/a	n/a	Elbow	flex	flex	Wrist	slight flex	slight flex	Grip	pinch	pinch	Force	Back	Neck	1lb. lift	slight bend	slight bend	Hand Height	Forward Reach	46"	12"
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1lb. lift	slight bend	slight bend																										
Hand Height	Forward Reach																											
46"	12"																											
3. Frame Prep	<ul style="list-style-type: none"> • Obtain bag ◆ Place over frame 		<table border="1"> <thead> <tr> <th></th><th>Left Arm</th><th>Right Arm</th></tr> </thead> <tbody> <tr> <td>Shoulder</td><td>slight flex</td><td>slight flex</td></tr> <tr> <td>Elbow</td><td>flex</td><td>flex</td></tr> <tr> <td>Wrist</td><td>slight flex</td><td>slight flex</td></tr> <tr> <td>Grip</td><td>pinch</td><td>chuck</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Force</th><th>Back</th><th>Neck</th></tr> </thead> <tbody> <tr> <td>2 lbs. pull</td><td>n/a</td><td>slight bend</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Hand Height</th><th>Forward Reach</th></tr> </thead> <tbody> <tr> <td>46"</td><td>12"</td></tr> </tbody> </table>		Left Arm	Right Arm	Shoulder	slight flex	slight flex	Elbow	flex	flex	Wrist	slight flex	slight flex	Grip	pinch	chuck	Force	Back	Neck	2 lbs. pull	n/a	slight bend	Hand Height	Forward Reach	46"	12"
	Left Arm	Right Arm																										
Shoulder	slight flex	slight flex																										
Elbow	flex	flex																										
Wrist	slight flex	slight flex																										
Grip	pinch	chuck																										
Force	Back	Neck																										
2 lbs. pull	n/a	slight bend																										
Hand Height	Forward Reach																											
46"	12"																											

Job Title:	Dakota A-Line Sub Assembly Operator	Page: 3 of 10
Description:	The A-Line Sub Assembly Operator is responsible for assembling the component parts for the front seats of trucks. Operators will work at one of as many as 16 different tasks along the assembly line. Operators will use a variety of hand and power tools including pneumatic wrenches and screwdrivers, and will operate a variety of machines including fixtures and power assist lifts. Operators rotate to a different station along the line each day.	

Department: A Line

Task: Frame Prep / Back Stuff

4. Place Trim
<ul style="list-style-type: none"> ◆ Obtain correct back trim • Place on rollers • Press footpedal to clamp trim



	Left Arm	Right Arm
Shoulder	slight flex	slight flex
Elbow	flex	flex
Wrist	slight flex	slight flex
Grip	pinch	pinch

Force	Back	Neck
2 lbs. lift	bend	slight bend

Hand Height	Forward Reach
12"	12"

2. Place Foam/Frame
<ul style="list-style-type: none"> ◆ Obtain back frame • Place back frame into foam ◆ Place foam/frame into fixture • Press footpedal to clamp frame



	Left Arm	Right Arm
Shoulder	flex	flex
Elbow	flex	flex
Wrist	slight flex	slight flex
Grip	pinch	pinch

Force	Back	Neck
12 lbs. lift	slight bend	slight bend

Hand Height	Forward Reach
74"	18"

3. Operate Stuffer
<ul style="list-style-type: none"> • Press footpedal to operate stuffer • Press footpedal to raise seat back ◆ Remove seat back • Place on conveyor



	Left Arm	Right Arm
Shoulder	slight flex	slight flex
Elbow	flex	flex
Wrist	n/a	n/a
Grip	pinch	pinch

Force	Back	Neck
13 lbs. lift	n/a	slight bend

Hand Height	Forward Reach
46"	12"

CLAIMS**What is claimed is:**

- 1 1. A method for performing job analyses of discrete jobs comprising the
2 steps of:
 - 3 a. creating a job analysis comprising a list of job requirements and
4 working conditions of each discrete job;
 - 5 b. creating a physical demands analysis comprising a list of
6 physical requirements of each discrete job;
 - 7 c. repeating steps a and b for each discrete job; and
 - 8 d. combining the results of step c into a job analysis database.
- 1 2. The method as characterized in Claim 1, wherein said physical
2 demands analysis is created by coordinating the essential functions of each of the
3 job's tasks and the physical requirements of each of the job's tasks with a pictorial
4 representation of each of the job's tasks.
- 1 3. The method as characterized in Claim 1, wherein the various job
2 analyses and physical demands analyses are combined to create a company
3 specific job analysis system database.
- 1 4. The method as characterized in Claim 1, wherein the job analysis
2 system database is made available to those with a need to know the database.
- 1 5. The method as characterized in Clam 1, wherein said job analysis is
2 created by:
 - 3 a. giving each discrete job a generic title;
 - 4 b. creating a brief description of job activities for each discrete job;
 - 5 c. creating a list of essential functions that an employee must be
6 able to do to perform each discrete job properly;
 - 7 d. creating a list of strength requirements of each discrete job;
 - 8 e. creating a list of physical requirements of each discrete job; and
 - 9 f. creating a list of frequencies of certain motions and movements
10 necessary to perform each discrete job.

1 6. The method as characterized in Claim 5, wherein said job analysis
2 further comprises:

3 g. creating a list of working conditions under which each discrete
4 job is performed;

1 7. The method as characterized in Claim 5, wherein said job analysis
2 further comprises:

3 h. creating a list of flexions necessary for the arms and hands to
4 perform each discrete job;

1 8. The method as characterized in Claim 5, wherein said job analysis
2 further comprises:

3 i. creating a list detailing motions and maximum strengths
4 necessary to perform each discrete job;

1 9. The method as characterized in Claim 5, wherein said job analysis
2 further comprises:

3 j. creating a list of specific or additional requirements necessary of
4 a specific employee for each discrete job at a specific workstation.

1 10. The method as characterized in Claim 5, wherein said job analysis
2 further comprises:

3 k. creating a section for a physician to indicate his or her review
4 and approval of the job analysis.

1 11. The method as characterized in Claim 1, wherein said physical
2 demands analysis is created by:

3 a. listing a generic job title and a brief description of each discrete
4 job;

5 b. listing generic sub-listings of a department of the company in
6 which each discrete job is and a generic task name; and

7 c. creating a three-part screen showing tasks of the job, a pictorial
8 representation of the tasks, and physical requirements of the tasks.

1 12. The method as characterized in Claim 11, wherein the step of creating
2 the three part screen is repeated sequentially to show each discrete task required to
3 perform each discrete job.

1 13. The method as characterized in Claim 5, wherein said physical
2 demands analysis is created by:

3 a. listing a generic job title and a brief description of each discrete
4 job from the job analysis;

5 b. listing generic sub-listings of a department of the company in
6 which each discrete job is and a generic task name; and

7 c. creating a three-part screen showing the tasks of the job, a
8 pictorial representation of the tasks, and physical requirements of the tasks.

1 14. The method as characterized in Claim 13, wherein the step of creating
2 the three part screen is repeated sequentially to show each discrete task required to
3 perform each discrete job.

1 15. The method as characterized in Claim 1, wherein said database is
2 available on a portable storage medium.

1 16. The method as characterized in Claim 1, wherein said database is
2 available for viewing over a computer network.

1 17. The method as characterized in Claim 16, wherein said computer
2 network is a global computer network.

1 18. A method for performing job analyses for discrete jobs
2 comprising the steps of:

3 a. creating a job analysis comprising a list of job requirements and
4 working conditions of each discrete job, including a description of job activities, a list
5 of essential functions that an employee must be able to do to perform each discrete
6 job properly, one or more lists of physical requirements of each discrete job, and a
7 list of working conditions under which each discrete job is performed;

8 b. creating a physical demands analysis comprising a list of
9 physical requirements of each discrete job, including a description of each discrete

10 job; and a three-part screen showing the tasks of the job, a pictorial representation
11 of the tasks, and the physical requirements of the tasks;

12 c. repeating steps a and b for each discrete job; and
13 d. combining the results of step c into a job analysis database.

1 19. The method as characterized in Claim 18, wherein said job analysis
2 further comprises a list of flexions necessary for the arms and hands to perform
3 each discrete job, a list of motions and maximum strengths necessary to perform
4 each discrete job, and a list of specific or additional requirements necessary of a
5 specific employee for each discrete job at a specific workstation.

1 20. A method for providing a real-time system for matching a specific
2 person with a specific job within an organization, comprising the steps of:
3 a. creating a job analysis system database comprising a list of
4 requirements and working conditions of the specific jobs within an organization, a list
5 of essential functions that an employee must be able to do to perform the specific
6 jobs properly, a list of working conditions under which the specific jobs are
7 performed; and a physical demands analysis comprising a list of physical
8 requirements of the job;
9 b. providing a search engine capable of searching the job analysis
10 system database based on one or more selected criteria that are relevant to the
11 specific person; and
12 c. inputting one or more selected criteria that are relevant to the
13 specific person into the search engine and running the search engine,
14 wherein the search engine will output a specific job within the organization that
15 satisfies the one or more selected criteria that are relevant to the specific person, if
16 such a specific job exists.

ABSTRACT

A new and improved method of performing job analyses and delivering or providing access to the results of the job analyses.

Docket No
20903.002US**Declaration and Power of Attorney For Patent Application****English Language Declaration**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

JOB ANALYSIS SYSTEM

the specification of which

(check one)

is attached hereto.

was filed on _____ as United States Application No. or PCT International Application Number _____
and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)	Priority	Not Claimed
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(Number)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/>
(Number)	(Country)	(Day/Month/Year Filed)	<input type="checkbox"/>

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

<u>Not yet assigned</u>	<u>27 January 2000</u>
(Application Serial No.)	(Filing Date)
(Application Serial No.)	(Filing Date)
(Application Serial No.)	(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
(Application Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (*list name and registration number*)

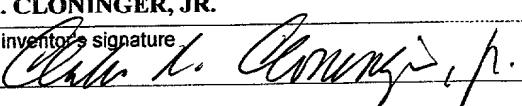
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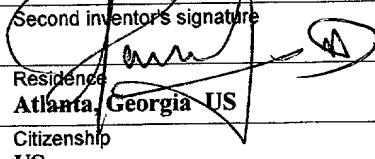
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